

F ~~47~~ ^{separator 46} The bipolar plate of claim ~~25~~, wherein the gas barrier prevents communication of gas between opposing faces of the sheet.—

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Cont'd F ~~55~~ ^{separator 48} The bipolar plate of claim ~~38~~, wherein the gas barrier prevents communication of gas between opposing faces of the sheet.—

F ~~59~~ ^{separator 50} The bipolar plate of claim ~~31~~, wherein the gas barrier prevents communication of gas between opposing faces of the sheet.—

REMARKS

This is intended as a full and complete response to the Office Action dated June 8, 1999.

Claims 7, 8, 13-15, 30, 39 and 42-44 stand rejected under 35 USC §102(b) as being anticipated by Rao et al (Rao). In support of this rejection, the Examiner has cited the Abstract of Rao along with column 6, lines 43-61, and Figures 1-4 along with corresponding text. The Examiner has stated that "[t]he gas impermeable material disclosed by Rao is the glass fiber" (Paper No. 19, page 2, line 6) and that "a flowfield could be the glass material of Rao or . . . the space between the glass fibers." (Paper No. 19, page 2, lines 11-12). Accordingly, Applicant has amended independent claims 7, 30 and 44, from which all other rejected claims depend, so that the gas impermeable material is disposed within pores of the porous, electrically conducting sheet to form a gas barrier that prevents gas communication between opposing faces of the sheet. Support for this amendment can be found in Figures 4-6, 14, 15 and 17. While individual glass fibers may be gas impermeable, the collection of glass fibers do not prevent gas communication between opposing faces of the sheet. Claims 7 and 44 have been further amended to specify that the flowfield is a fluid flowfield. It is respectfully brought to the Examiner's

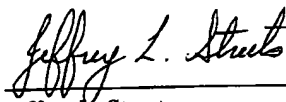
attention that claim 30 includes the transition "consisting essentially of". Applicant asserts that Rao does not teach, show or suggest the bipolar plate of the present claims.

Claims 9-12 and 16 stand objected to as depending from a rejected base claim. These claims have been amended and placed in independent claim form.

Applicant has submitted new claims 45-63 for the Examiners consideration. Claims 45-49 depend from allowed claim 36 and are therefore believed to be allowable on the same basis. Claims 50-52 are directed to various metals that may form the gas barrier. These claims are dependent upon claims 7, 21 and 36, respectively, which are believed to be allowable in view of the foregoing remarks and amendments. Claims 53-63 include the limitation that the gas barrier prevents gas communication between opposing faces of the sheet, as discussed above

Applicant asserts that the foregoing remarks and amendments place the claims in condition for allowance and requests reconsideration of the claims. Applicant authorizes the Examiner to charge any additional fees that may be due to the deposit account 50-0714/Lynn/0020.

Respectfully submitted,



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